



This number of Je-LKS closes the fifth year of the journal and it contains some of the most significant papers presented at the VI Sie-L Conference held at the University of Salerno from the 16th to the 18th of September 2009.

In the European year dedicated to creativity and innovation, the VI Conference of the Italian e-Learning Association reflected critically on the role that e-Learning can have in “creative and innovative” formation, in the contexts of formal and informal education, in order to sustain the qualification or re-qualification of individual and collective competences.

The Conference, articulated in three days, each one dedicated to a specific topic, (during the opening “e-Learning: challenges and vision” Wednesday 16 September; “e-Learning and Knowledge Society” Thursday 17 September; “e-Learning and opportunities: Industries and Public Administration” on the final day, Friday 18 September) was an interesting moment of reflection and confrontation on the eight dimensions of e-Learning (methodological, technological, design, assessment, managerial, contentual, ethical and institutional) that Badrul H. Khan identified in his e-Learning Framework (2004) and the number we present here contains papers representing many of the above mentioned dimensions.

E-learning has had in recent years a development parallel to that of technology, proposing new didactic models that from time to time have adopted its innovations. An example is the paradigm of collaborative learning where we can see the appearance of new work group management models, which use technologies to support transformation processes such as social networking and the use of 3D Virtual Worlds functional to the construction of a community environment (Proceedings of the Second Life Education Workshop, 2007). The existent scientific literature shows how collaborative learning depends on the right combination of various elements. The researches on role-taking activities in Computer Supported Collaborative Learning (CSCL) show that roles

favour the processes of knowledge construction facilitating an awareness of the processes of inter-individual coordination. In “Role-taking for Knowledge Building in a Blended Learning Course” an experimental research is presented. This shows the different levels of participation to role-taking activities and it is fundamental to obtain a better understanding of the relationship between participation and learning. Also many companies are moving in this direction for the support offered by environments which favour collaborative activities carried out globally. In “Second Life Technological Transfer to Companies: the Case Study of the CC ICT-Sud Centre” is presented the experience of Second Life lived by the authors in supporting the distance learning activities performed by the CC ICT-Sud Centre in the ambit of a course on the methods and the tools used in collaborative work and which is destined to company employees, civil servants and university graduates.

In addition to the collaborative aspect, it is interesting to notice how the use of multimedia technologies can have positive effects from the cognitive and linguistic point of view in foreign language teaching (CALL), on the capability of understanding and on motivation as well as on the quality/quantity of learning, allowing a creative approach which can express itself in writing or in oral speech. In “Learning a Foreign Language through the Making of a Video” a case study is presented. New technologies are used in foreign language teaching with a series of particular cognitive aspects and possible positive effects in language learning.

The design of innovative didactic units, which aim at enriching and at re-proposing models capable of satisfying the complexity of the learning experiences required by the market, cannot but make use of methods that respect the four main requirements of on line education: modularity, interactivity, thoroughness and inter-operability. The article “A Formal Instructional Model Based on Concept Maps” presents the project CADDIE - Content Automated Design & Development Integrated Editor: an innovative solution for the processes of learning content design based on the ontological structure of the discipline taught and on the possibility of inserting resources in a automated way following parameters previously thought out by the instructor.

The paper “New Models for the Medical School of Medicine: Comparison between oral and online classes. The experience of the Genoa School of Medicine” is instead the result of a research carried out during the academic years 2007-08 and 2008-09, thanks to the organization of free choice didactic courses proposed to the students of the III, IV, V and VI year of the Degree Course in Medicine and Surgery of the University of Genoa with the aim of identifying the sectors of application, the advantages and the limits of e-Learning in the formation process of a medical faculty.

The issues still open in the sector of Storing and Knowledge retrieval have

been internationally debated since the concept of Learning Object and the rules for its creation (for example, following the SCORM standard) have become a reference in the sharing of materials for teaching and learning. The problematic elements connected to these topics have been faced from symmetrical points of view in two different papers. The first one “Semantic Retrieval of Learning Objects with Schema Matching” talks about semantic methodologies and techniques based on Semantic Web for the management of contents in e-Learning systems. In the specific the solution presented and its implementation for the semantic research of learning objects integrate semantic techniques with techniques of schema matching which make it possible to look for didactic components necessary to obtain a certain ontology.

The second one “Lesson Plan Archivation: Metadata and Web 2.0 Applications” faces the problem of how to file particular didactic resources described in literature as “descriptor typology” and “repository dynamism”. The article introduces metadata (primary and secondary meta dating) useful to describe them and to explain the advantages of the use of Web 2.0 social tools in the creation and the updating of an archive.

A second research path is that of the Assessment of learning and the monitoring of highly significant elements. In the perspective of lifelong learning the single individual feels the need to receive a personalized kind of training capable of facilitating the learning of specific competences and of taking into account not only the required knowledge, but also the necessary sector abilities.

An approach based on pedagogical driver e-learning solutions must necessarily integrate the results of the sector of representation of the ontology based competences with that of human-computer interaction respectively in multimodal, attentive, affective and perceptual user interfaces with the aim of monitoring the behaviours of students in Computerized Adaptive Testing.

With reference to the ontology based representation of the competences connected to a knowledge domain, the paper “Competence Management in E-Learning Systems: A possible Approach” proposes an innovative model based on the synergic use of two classes of ontologies (the first one concerning training in general, the second one its application to training in a sector which requires specific skills) and it aims at preparing in a semi-automatic modality, personalized learning units which make it possible to acquire one or more competences in an efficacious and efficient way. The state of art of the existent types of knowledge assessment in the main platforms finds in testing the most used solution. The article “Online Testing, Current Issues and future Trends” presents an overview of the most recently proposed techniques with which on line tests are used in different ambits and lists the functions at present existent only in system prototypes (Computerized adaptive testing - CAT; Automatic

generation of questions; Log analysis). Only recently more studies which place emotions at the center of every learning attempt and result in e-Learning have been carried out. These studies reveal the importance of the emotional state of the learner and, in particular, the relationship between emotions and efficacious learning.

In “Advanced User Interfaces for E-Learning” are described the activities carried out in the ambit of the WiSe project (a national project which sees the collaboration of Engineering.IT with the Department of Information Engineering and Applied Mathematics of the University of Salerno) with reference to the realization of perceptive, attentive and affective multimodal interfaces and their use in e-Learning scenarios in order to obtain a methodology – in a user centered design perspective – capable of supplying tools which measure the level of attention and involvement in e-learning experiences and of being an element which sustains a dynamic activity, placing therefore the system in the condition to offer just in time the required didactic support.

Finally, the innovations and the experiences with the Technologies that help learning, are described in far-reaching papers. The idea to extend to the universe of the cellular phone the functions of the Online Communities is explored in “The Development of a Mobile Communities Application” and is presented by telling the story of the integration between a platform of virtual communities and mobile technologies, transforming the services available on the Web platform into mobile services and enriching these with peculiarities which are typical of cellular devices. The convergence between mobile devices and community services favours the fruition and reproduction of different educational contents.

Still in the field of technological innovation, in “Grid Based Software Solutions to Manage the Lifecycle of Collaborative Learning Environments” we can find a description of the solutions for the creation of collaborative learning environments, such as the Virtual Learning Community in the ambit of the European Learning Grid Infrastructure project. The software solutions have been validated by a case study on the creation of a collaborative environment for the playing of Massive Multiplayer Online Games. Finally, in “EifFE-L meets ECLIPSE: An Integrated Open Source E-Learning Environment” the integration between the open source environment EifFE-L (Environment for Freedom in E-Learning) and the open source platform Eclipse, is carried out and discussed in order to create an environment open to development both for educational, and more in general, for knowledge management purposes.

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The number is completed by the communication of Filomena Faiella and Giuseppina Rita Mangione about the invited session at the VI Congress of the Italian e-Learning Association (Salerno, September 16th-18th 2009).

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